

**INHIBITION OF ANGIOGENESIS BY HIGH MOLECULAR  
WEIGHT KININOGEN AND PEPTIDE ANALOGS THEREOF**

**Abstract of the Disclosure**

5                   Two-chain high molecular weight kininogen, and peptide  
analogs thereof having homology to sites within kininogen domain 5, are  
potent inhibitors of angiogenesis. The peptides have the formula  $X_1$ -His-  
Lys-X-Lys- $X_2$  wherein

X is any amino acid,

10                    $X_1$  is from zero to twelve amino acids, more  
preferably from zero to six amino acids, most preferably  
from zero to three amino acids, and

$X_2$  is from zero to twelve amino acids, more  
preferably from zero to six amino acids, most preferably  
15                   from zero to three amino acids.

X is preferably an amino acid having a nonpolar side chain, or a polar  
side chain which is uncharged at pH 6.0 to 7.0. X is most preferably  
Asn, Phe or His. Methods of inhibiting endothelial cell proliferation and  
angiogenesis are provided.